Remarks

Claims 5, 10, 15, 16, 20, 21, and 26 were allowed.

Claims 33-34 were rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. In particular, the Examiner stated that he is unable to comprehend the meaning of the claim language "statistical nature of the channel vector". Claim 33 has been cancelled with this response.

Claims 31-35 were rejected under 35 USC §103(a) as being unpatentable over Kasapi in view of Voyer. In response, these claims were amended to include the fact that the unequal power weightings for each data stream is based on a noise power and an average over at least one realization of a channel vector, wherein elements of the channel vector are random variables. Particularly, claim 31 was amended to include the limitation originally found in claim 33.

The Examiner stated that the limitation of claim 33 could be found in Voyer. Particularly, the Examiner stated that "Voyer discloses the statistical nature of the channel vector averaged on a realization of a channel vector wherein the elements of the channel vector are random variables." The Examiner stated that this limitation could be found in Col. 3, lines 3-20 and Col. 7, lines 55-67.

Analysis of these sections of Voyer reveals that Voyer provides a description of channel reciprocity which is known in the art. Particularly, channel reciprocity means that the downlink channel can be obtained from measurements of the uplink channel. The "variations" mentioned in col. 3 lines 3-20 of Voyer simply refer to "an angular sampling of the transfer function" and not and an average over at least one realization of a channel vector, wherein elements of the channel vector are random variables.
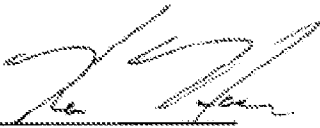
In col. 7 lines 55-67, Voyer provides an expression for the signal to noise plus interference ratio given a directional nature of the interference, Iu, whose elements may be modeled as Gaussian random variables (but are not generated in a processing unit as Gaussian random vectors). These two components cited from Voyer do not teach generating random variables (e.g., in a processing unit)

8

which are used in components of a realization of a channel vector which are then used to determine unequal power weightings for data streams.

Because no reference teaches or otherwise suggests that unequal power weightings for each data stream is based on a noise power <u>and an average over at least one realization of a channel vector, wherein elements of the channel vector are random variables</u>, claims 31 is in proper condition for allowance.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein; and no amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references. As the Applicant has overcome all substantive rejections given by the Examiner the Applicant contends that this Amendment, with the above discussion, overcomes the Examiner's rejections to the pending claims. Therefore, the Applicant respectfully requests allowance of the application. If the Examiner is of the opinion that any issues regarding the status of the claims remain after this response, the Examiner is invited to contact the undersigned representative to expedite resolution of the matter. Finally, please charge any fees (including extension of time fees) or credit overpayment to Deposit Account No. 502117.

Respectfully Submitted,
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